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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/807,960	05/18/2001	Yasuji Hiramatsu	205240US0PCT	6669

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ALEXANDRIA, VA 22314

EXAMINER

LAM, CATHY FONG FONG

ART UNIT	PAPER NUMBER
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1775

92

DATE MAILED: 07/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/807,960

Applicant(s)

HIRAMATSU ET AL.

Examiner

Cathy Lam

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12 is/are rejected.
- 7) ☒ Claim(s) 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 21.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

In respond to the continued prosecution application filed on March 27<sup>th</sup> 2003, the pending claims are rejected as following:

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2, 4-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Kawai et al (US 5279886).

Kawai teaches a ceramic heater comprised of heater electrode and a ceramic base layer (col 1 L 5-8).

The ceramic base layer is a sintered alumina body which is an oxide ceramic (col 2 L 13-20). A heater electrode is printed on the ceramic base layer and sintered simultaneously (col 2 L 11-13).

The ceramic heater after sintered has no open pores (col 6 L 1-10).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawai et al (US 5279886) in view of Ketcham (US 5338598).

Kawai discloses a ceramic heater comprised of a ceramic base layer and an electrode. The ceramic base layer is an alumina material or an oxide material. Kawai does not teach that the ceramic base layer can be a non-oxide, a carbide or a nitride material.

Ketcham teaches a composite article comprised of a sinterable ceramic material. The sinterable ceramic material includes an oxide ceramic, a non-oxide ceramic, aluminum nitride, carbides, etc. (col 4 L 65-col 5 L 6).

The sintered ceramic material exhibits zero open porosity (col 3 L 42-44).

Ketcham teaches many ceramic materials that can be used to make the composite article. Ketcham also teaches that any modification and variation can be done to achieve a desired article by one skill in the art (col 12 L 4-12).

Kawai is silent about having a Peltier device on the surface of the ceramic base layer.

It would have been obvious to include any electronic component(s) and/or device(s) on a ceramic substrate because it is conventional to do so.

### ***Response to Arguments***

5. Applicant's arguments filed on Feb. 1<sup>st</sup> 2002 have been fully considered but they are not persuasive. Applicant traverses the art rejection and raises the following issues:

A. Ketcham teaches a sintered body not a ceramic heater.

B. Ketcham's discloses of "essentially zero open porosity" does not exclude a non-porous condition.

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C. In the end of the remarks, applicant states that the examiner would withdraw the art rejection, once the 112 rejection is explained.

6. In response to the above issues:

A.&B. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Ketcham teaches a composite article which comprises the claimed material, that is a non-oxide ceramic containing oxygen. Ketcham's goal is to fabricate a dense, closed pore or void free composite.

C. The 112 rejection has been withdrawn, because applicant has clearly explained the invention. However the claims are continued to be unpatentable and rejected by the prior art of record. Applicant is reminded that claims can be rejected under both 35 USC 112 rejection and 35 USC 102 and/or 35 USC 103, each rejection is independent from the others.

***Allowable Subject Matter***

7. Claim 11 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cathy Lam whose telephone number is (703) 308-2418. The examiner can normally be reached on 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Deborah Jones can be reached on (703) 308-3822. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9604 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

  
Cathy Lam  
Primary Examiner  
Art Unit 1775

cfl  
July 14, 2003